IEEE Educational Activities Update
Region 10 Meeting – 3 March 2019

Supavadee Aramvith
Member, IEEE Educational Activities Board (EAB)
Chair, Pre-University Education Coordination Committee (PECC)

Supavadee.A@chula.ac.th
2019 IEEE Educational Activities Board

15 Voting, 3 Non Voting
18 Total
Educational Activities

Areas of Focus

Pre-University Activities
TryEngineering.org; Teacher/Volunteer Training; Summer Institutes; TryEngineeringTogether

University Activities
Accreditation Coordination; EPICS in IEEE; IEEE-Eta Kappa Nu

Continuing Education
eLearning; Certificates; IEEE Learning Network
Pre-university engineering education web portal that provides in-classroom resources for educators and assists students in preparing for a career in engineering.

PRE-UNIVERSITY RESOURCES

- Educator Lesson Plans
- Engineering Education Blogs
- Career Pathways
- Engineer Profiles
- Engineering Program Database

- 8 Language Translations
- 2 Million+ Annual Visitors
- 140+ Lesson Plans

Questions about TryEngineering.org? E-mail Dawna Schultz, Program Manager, d.j.Schultz@ieee.org
Teacher In-Service Program (TISP)

Overview

Train-the-trainer program which prepares IEEE Volunteers to facilitate professional development sessions for pre-university educators in their local area.

The sessions are based on the use of TryEngineering.org lesson plans and hands-on activities.

Objectives

• Assist IEEE members in collaborating with their local pre-university education community
• Promote applied inquiry-based learning
• Enhance the level of technological literacy of pre-university educators and students
• Encourage pre-university students to pursue STEM-related careers
TISP Evolution
TryEngineering Ambassador Program

- 2019 – developing plans to expand to TryEngineering Ambassador Program
  - Planned features:
    • Integration with TryEngineering.org
    • Outreach opportunities and training resources
    • Improved reporting and impact research
    • Volunteer recognition

- Events in 2019?
  - Request event registration for your TISP event (comply with GDPR guidelines) via https://wp.me/P8z0yE-xH
  - Continued funding support for local TISP sessions. Email proposal to Lynn Bowlby l.bowlby@ieee.org for review.
    • Include: TISP Champion name, event location, event date, anticipated number of teachers

Please remember to report your TISP events to l.bowlby@ieee.org.
IEEE Eta Kappa Nu (IEEE-HKN)
The Honor Society of IEEE

Dedicated to promoting excellence in the profession and in education as the honor society of IEEE through core ideals of scholarship, character, & service.

- 225+ Chapters
- 3000+ annual inductions

Region 10 Chapters
- Waseda University
- G.H. Raison College of Engineering
- Indian Institute of Science – Bangalore
- Bharati Vidyapeeth College of Eng
- UCSI University - Kuala Lumpur
- Chulalongkorn University
- National University of Singapore
- University of Hong Kong
- National Chiao Tung University
- University of Queensland

THE BRIDGE MAGAZINE
Published since 1910, THE BRIDGE is the flagship publication of IEEE-HKN.

STUDENT LEADERSHIP CONFERENCE (SLC)
Brings together IEEE-HKN students from around the world for training and networking in a leadership program.

FOUNDER'S DAY
Each year on 28 October, the anniversary of the establishment of the first chapter, we celebrate Founders Day.

https://hkn.ieee.org/

Questions about IEEE-HKN? E-mail Nancy Ostin, Program Director, n.ostin@ieee.org
EPICS in IEEE demonstrates how *Project-based Student Service Learning* creates impactful Student partnerships

University and High School students work collaboratively with industry, non-profit organizations, and teams of engineers to deliver innovative technological solutions to pressing community problems providing young people with real-world learning experiences.

“Once you are willing to make a positive change in the community, there will always be people ready to join you.”

Victoria Serrano – Current EPICS in IEEE Committee Member from Panama, EPICS in IEEE Project Leader “STEM Beyond the Borders” – University of Arizona
Project Example
“Smart Furniture for Classrooms”

Jiaotong University– Beijing China

Students from the Jiaotong University received a grant from EPICS in IEEE to create “Smart Furniture”.

The students believed that when children in the primary grades use furniture that takes into account the distance between their eyes and the top of the desk, and which encourages good posture,

- Conditions like myopia (nearsightedness) and scoliosis (curvature of the spine) can be reduced.
- Proper furniture can also help to reduce fatigue, encouraging learning and retention.
EPICS in IEEE

SUBMIT A PROPOSAL

• Want to make a difference in your community?
• Do you see a problem?
  • Do you have an idea for a solution?
• Encourage submission proposals in your area
• Make a change TODAY!

https://epics.ieee.org/applicants/proposal/

Questions about EPICS in IEEE?
E-mail Ray Alcantara, Program Manager, r.alcantara@ieee.org
What is the IEEE Learning Network (ILN)?

**Vision for IEEE Learning Network:**
Provide one portal for IEEE educational courses to be discovered, while allowing users to track their learning progress.

**ILN is:**
- One-stop site for discovering IEEE continuing education
- Learning management system (LMS)
- Integrated with key IEEE systems:
  - IEEE Enterprise eCommerce Cart
  - Siebel Catalog
  - IEEE Customer Record
  - Single Sign On
  - IEEE Customer Profile Application
  - MetaNav
  - Xplore

Coming in Q3 2019

Questions about ILN?
E-mail Marguerite Corazza, Director of Continuing Education, m.corazza@ieee.org
The 2019 EAB Awards and Scholarships and IEEE-HKN Awards nominations are now being accepted through 6 May 2019.

Nominate deserving individuals!

For a complete details and nominations visit:

How should your Section get involved with Educational Activities?

- Appoint someone responsible for educational activities in your **section**
- Engage with your Regional Educational Activities Chair (**REAC**)  
  - Lance Fung
- Spread the word about the resources for teachers at [TryEngineering.org](http://TryEngineering.org)
- Engage with your **TISP** trained volunteers
- Encourage the submission of **EPICS in IEEE** proposals
- Help spread the word about the **IEEE Learning Network** (when launched)
- Nominate potential **EAB Award** winners
Appendix

Region 10 EPICS in IEEE Projects
## Completed Projects in Region 10

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Project Title</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>India</td>
<td>India - Sync Traffic Control</td>
<td>$1,600.00</td>
</tr>
<tr>
<td>2010</td>
<td>India</td>
<td>India - Communication Device to Assist Children with Cognitive Disorders</td>
<td>$1,600.00</td>
</tr>
<tr>
<td>2011</td>
<td>India</td>
<td>India-Humanitarian Computing Local Solutions For The Visually Impaired</td>
<td>$2,252.00</td>
</tr>
<tr>
<td>2011</td>
<td>India</td>
<td>India - Green Cart</td>
<td>$2,800.00</td>
</tr>
<tr>
<td>2011</td>
<td>India</td>
<td>India - Video Learning*</td>
<td>$3,630.00</td>
</tr>
<tr>
<td>2011</td>
<td>India</td>
<td>India - Device to Assist Communication of disable Based on Hand Gesture Recognition</td>
<td>$1,950.00</td>
</tr>
<tr>
<td>2012</td>
<td>India</td>
<td>India - Learning Aids for Visually Challenged</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>2012</td>
<td>India</td>
<td>India - Low-cost ground reaction force line biofeedback for static posture training - Smart Mirror</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>2012</td>
<td>India</td>
<td>India - Wrist band for Hearing Impaired</td>
<td>$1,230.00</td>
</tr>
<tr>
<td>2012</td>
<td>India</td>
<td>India - Real Time Sign Language Conversion to Audio</td>
<td>$1,304.00</td>
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<tr>
<td>2012</td>
<td>India</td>
<td>India - India Rural Cardiac Health Care: Exploring ICT for Cardiovascular Diseases using Phonocardiography</td>
<td>$1,220.00</td>
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<tr>
<td>2012</td>
<td>India</td>
<td>India - Laptop Interfaced multi-Purpose Probe</td>
<td>$725.00</td>
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<tr>
<td>2012</td>
<td>India</td>
<td>India - Eye-Gesture Controlled Semin-Automatic Mobility Assist with Electro-Oculography Based Human-Whellch</td>
<td>$1,685.00</td>
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<tr>
<td>2012</td>
<td>India</td>
<td>India - Comunicative Hand Glove For The Hearing Impaired</td>
<td>$1,315.00</td>
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<tr>
<td>2013</td>
<td>China</td>
<td>China - Intelligent Bookshelf Designed For Children and the Disabled</td>
<td>$6,850.00</td>
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<tr>
<td>2013</td>
<td>India</td>
<td>India - Educational Device For The Mentally Disadvantaged And Learning Disabled</td>
<td>$1,900.00</td>
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<tr>
<td>2013</td>
<td>India</td>
<td>India - PULSS Prenatal Ultrasound Scan System For Low Resource Settings</td>
<td>$4,480.00</td>
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<tr>
<td>2013</td>
<td>Malaysia</td>
<td>Malaysia - Development of Hand-Cycle For Children With Movement Disorder</td>
<td>$2,000.00</td>
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<tr>
<td>2013</td>
<td>Malaysia</td>
<td>Malaysia - Developing A Real Time Activity Recognition For Children With Communication and Social Interaction</td>
<td>$4,000.00</td>
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<td>2014</td>
<td>China</td>
<td>China - Education and Outreach of Electrical Engineering and Renewable Energy</td>
<td>$8,200.00</td>
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<tr>
<td>Year</td>
<td>Country</td>
<td>Project Description</td>
<td>Cost</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------------------</td>
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<tr>
<td>2014</td>
<td>India</td>
<td>Tele-Ophthalmoscopy for diagnosis of eye abnormalities in patients</td>
<td>$1,500.00</td>
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<tr>
<td>2014</td>
<td>India</td>
<td>Abiot: A Non-Chemical Electronic Agile Pest Control Device</td>
<td>$1,500.00</td>
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<tr>
<td>2014</td>
<td>Malaysia</td>
<td>Low-Cost Upper Extremities Rehabilitation System With Interactive Feedback for Children With Movement Disorders</td>
<td>$5,000.00</td>
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<tr>
<td>2014</td>
<td>Pakistan</td>
<td>Analytical Application For Baseline Survey 2014</td>
<td>$3,000.00</td>
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<tr>
<td>2015</td>
<td>India</td>
<td>India - Real Time Conversion of Sign Language into Textual and Audio Form to Assist Hearing and/or Speech Impaired</td>
<td>$485.00</td>
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<tr>
<td>2015</td>
<td>India</td>
<td>India - Digital Literacy in Rural India</td>
<td>$3,000.00</td>
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<tr>
<td>2015</td>
<td>India</td>
<td>India - Sophisticated WheelChair for Physically Disabled</td>
<td>$2,210.00</td>
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<tr>
<td>2015</td>
<td>Malaysia</td>
<td>Malaysia - Safety Operation and conversion of electrical appliances among flood victims</td>
<td>$5,000.00</td>
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<tr>
<td>2015</td>
<td>Pakistan</td>
<td>Pakistan - BioMedical Lab</td>
<td>$6,841.00</td>
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<tr>
<td>2016</td>
<td>China</td>
<td>Adjustable Desks and Chairs for Students</td>
<td>$2,500.00</td>
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<tr>
<td>2016</td>
<td>India</td>
<td>CasTalk: A smart Cloud Platform</td>
<td>$7,900.00</td>
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<tr>
<td>2016</td>
<td>India</td>
<td>Automatic Wheelchair for Disabled Person</td>
<td>$9,840.00</td>
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<tr>
<td>2016</td>
<td>India</td>
<td>A Muscle Machine Interface for assisting</td>
<td>$1,177.00</td>
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<tr>
<td>2016</td>
<td>Pakistan</td>
<td>DC to DC Converter</td>
<td>$426.00</td>
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<tr>
<td>2017</td>
<td>India</td>
<td>She Bracelet</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>2017</td>
<td>India</td>
<td>Smart Security System for Orphanage</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>2017</td>
<td>Pakistan</td>
<td>Nourtiring Young Minds</td>
<td>$190.00</td>
</tr>
<tr>
<td>2018</td>
<td>Sri Lanka</td>
<td>SS12: Age of Innovation 2018</td>
<td>$5,000.00</td>
</tr>
</tbody>
</table>

Total: $111,310.00